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ABSTRACT

Florida students being considered for special programs for visually impaired students must be assessed to determine the appropriate mode of reading. The assessment occurs as part of an initial evaluation for eligibility and is usually part of the functional vision observation. The determined mode of reading is to be addressed on the Individual Education Plan (IEP) and reviewed annually as part of the IEP process. This technical assistance paper defines terms related to the concept of reading mode and notes three major factors to be considered in determining the mode of reading: child characteristics; mechanical factors; and social factors. Questions to be considered in these three areas are then outlined, such as whether the medical prognosis of the eye condition is progressive in nature; whether the student experiences unusual fatigue in reading or writing assignments; and whether the chosen medium meets the needs of the student in terms of portability, availability, and cost. Seven resources useful in student evaluation are listed, along with 12 references for further reading. (JDD)

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TECHNICAL ASSISTANCE PAPER

FLORIDA DEPARTMENT OF EDUCATION
DIVISION OF PUBLIC SCHOOLS
BUREAU OF EDUCATION FOR EXCEPTIONAL STUDENTS

ED332469

No. FY 1991-2 January, 1991	DETERMINATION OF MODE OF READING FOR VISUALLY IMPAIRED LEARNERS	Refer Questions To: Carol Allman (904) 488-1106 SC 278-1106

STATEMENT OF PROBLEM

Rule 6A-6.03014(4)(a)2, FAC, requires that students who will be considered for special programs for visually impaired must be assessed to determine the appropriate mode of reading. The mode of reading is the determined communication medium, generally assessed by teachers of visually impaired students, that a student will use for reading and writing. For many students the assessment and subsequent recommendation of the communication medium is a straightforward process; however, for students who have low vision (usually legally blind with some residual vision) this assessment and recommendation can be a complicated process.

The assessment of the mode of reading occurs as part of initial evaluation for eligibility and is usually part of the functional vision observation. The determined mode of reading should be addressed on the Individual Educational Plan (IEP) and reviewed annually as part of the IEP process. Mode of reading must be re-evaluated at least every three years.

I. Definitions Relative to the Concept of Mode of Reading

The following definitions are used throughout this paper:

A. **Primary Mode of Reading**: the most frequently used medium during classroom instruction, the medium used in a wide variety of settings, and the medium used for reading and writing.

B. **Secondary Mode of Reading**: the medium that is occasionally appropriate, reduces fatigue, and is learned to allow for ease in completion of some tasks.

C. **Regular Print**: material that is available commercially and readily accessible to the general public.

D. **Large Print**: material that is enlarged, usually to 18 point or larger.

E. **Accommodation**: movement of regular or large print in relation to the field of vision for purposes of reading or writing.

F. **Magnification**: use of lens, optical aids, or other technology to enlarge regular or large print.

G. **Braille**: a system for tactile reading and writing.

H. **Supplements to Reading**: tapes, talking books, Optacon, Kurzweil, computers, and other technology.

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II. **Procedure for Determining Mode of Reading**

There are three major factors to be considered in determining the mode of reading for a visually impaired student. These are:

A. **Child characteristics** of age, cognitive level, educational level, eye medical prognosis, visual fields, and visual acuities are initial considerations to be recorded. These factors are obtained from psychological reports, educational evaluations, and medical reports.

B. **Mechanical factors** include reading accuracy, rate, and comprehension; fatigue and stamina; physical dexterity; work distance from the page; posture during reading and writing; lighting levels needed for optimal visual functioning; and print factors such as type size, contrast, and clarity. Each of these factors can be assessed through use of the functional vision observation (see Technical Assistance Paper 90-4 on Functional Vision Observation). In addition, these factors should be assessed in any environment frequented by the student (such as the home, school, and work).

C. **Social factors** include the perceived and expressed needs and desires of the student and the family in relation to the medium or technology portability and availability and the student's motivation and desire. These factors are assessed through discussions with and observations of the child and the family relative to advantages and disadvantages of different reading mediums and technology.

Once the above factors are identified, questions (see Section III) can be addressed and the appropriate mode of reading can be discussed and recommended by the IEP committee.

III. **Questions To Be Considered**

Consideration of these questions will lay the groundwork for determining the appropriate mode of reading for a visually impaired child.

A. **Child Characteristics**

1. **Is the child old enough for instruction in reading?** If the child is not old enough to begin reading, then vision stimulation and tactile discrimination exercises can be used to further observe the abilities of the young or multihandicapped child. To assist in answering this question consultation with the parent and child's teacher is recommended.

2. **What are the cognitive and educational levels of the child?** Examination of the cognitive and educational levels will indicate the extent of and adaptations to a reading program in any mode. Consultation with a teacher of mentally handicapped children is recommended if the child is cognitively classified as mentally handicapped or is functioning educationally two years or more below the age appropriate level.

3. **Is the eye medical prognosis of a progressive nature?** Indication of a progressive loss of vision suggests frequent re-evaluating and planning for future reading mediums. Input from parents and other persons who

work with the child is imperative, particularly if changes in visual functioning are observed.

4. **Does a visual field restriction exist? If so, how restrictive is it?** Restrictions in the visual field may affect the use of magnifiers or other technology when print is an option for a visually impaired student.

5. **What is the visual acuity? Does the acuity fluctuate?** While the visual acuity is not a sole determinant of the mode of reading, it is certainly an indication that will suggest the reading modes to be considered. For instance, braille is a justified consideration for students who are totally blind; however, the amount of usable vision of a legally blind student will fluctuate from one individual to another and even partially sighted students may experience varying degrees of functional vision. For the purposes of this paper it is recommended that braille and accommodating print be considerations for students classified as legally blind.

B. **Mechanical Factors**

1. **Is the student keeping up with his peers in quality and quantity of work requiring reading and writing? If needed, can the student take notes in the chosen medium? What is the number of words read per minute, the reading accuracy rate, and the comprehension rate?** Estimates of these rates can be obtained for students who are already reading and should be established for a variety of mediums (large print, regular print, accommodated print, magnified print). When a student's rates are considerably lower than other students or lower than expected by the teacher of the visually impaired, a need for braille remediation or consideration of the use of tape or other auditory mediums particularly for reading large quantities of material may be necessary. Remember that students need to be able to write as well as read in the chosen medium. As students learn to read, the answers to these questions should be a consideration in addressing the mode of reading during subsequent re-evaluations.

2. **Does the student experience unusual fatigue in reading or writing assignments in the chosen medium? Can the student pursue assignments for an amount of time commensurate with his peers?** If the student's fatigue or stamina is considerably different from the other students in the class, the primary mode of reading may need to be reconsidered, a secondary mode of reading may need consideration, or a supplement to reading may be necessary, so that the visually impaired student can maintain the workload of the class.

3. **Does the student have the physical dexterity to carry out the mechanical aspects of the reading process (page turning, book holding, head control)?** Young students or students with multihandicaps may have physical disabilities or immaturity that will make it difficult to evaluate some aspects of the reading process. As reading readiness activities are implemented for these students, the teacher should be recording the achievement of the mechanical factors needed for the reading process for future reference in recommending an appropriate reading mode.

4. **What is the student's working distance from the page (including the posture during reading and writing)?** This is both a physical and a social consideration. Proper posture in reading helps to alleviate fatigue. In addition, the social ramifications of reading print with one's nose in very close proximity to the paper or screen used with a closed circuit TV system or a computer is a consideration for some students.

5. **What type size, contrast or clarity of print (serif or sanserif) is needed by the student? Is the type size readily available? How do these factors relate to fatigue and reading rates?** Print readers should be assessed on these factors. If considerable difficulties are noted, then a possible change in primary mode of reading may be indicated. In determining the functional acuity of young children, keep in mind that typical print read by this age group is enlarged and, depending on the factors discussed above, difficulties in reading may occur as the print gets smaller, reading demands increase, and accommodative abilities decline.

6. **What lighting levels are needed for optimum visual functioning? Is proper lighting available?** The adjustment of lighting levels should be made in all of the student's environments particularly if the student is a print reader and it has been determined that lighting is a critical factor to optimal functioning. While lighting is not a factor for determining mode of reading, it is a factor to consider once print has been determined to be the appropriate mode of reading.

C. Social Factors

1. **Will the chosen medium meet the needs of the student in terms of portability and availability (including cost)?** The student, his family, and school personnel will need to address this question and be cognizant of expense of equipment, maintenance considerations, and practical need for appropriate equipment in the school, home, or work settings.

2. **What are the perceived and the expressed needs and desires of the student and his family?** If a student and his family seem negative toward use of a mode of reading (any mode other than regular print), the choice of an appropriate mode of reading may require experimentation, counseling, exposure to others using various modes, and time to adjust to use of a chosen mode of reading and writing.

3. **Is the student motivated to use a chosen mode of reading?** Some students take time to adjust to the idea of using braille, large print, or other accommodations. Whichever mode is chosen, the student must have the desire and motivation to learn proper skills and use of the medium.

The factors discussed above should be helpful in determining the mode of reading and writing for visually impaired students. The primary mode of reading may be a combination of braille and large print or modification to regular print. Any medium that will benefit the student in his academic, social, vocational, and leisure goals should be addressed at some time in the student's educational experience. The IEP will reflect time spent on training students in various mediums as needed. These unique skills (braille, listening skills, use of accommodation, magnification,

computers or other technology) will require special instruction from the teacher of the visually impaired.

IV. **Resources**

Resources useful in the evaluation of students for the determination of mode of reading include:

- Program to Develop Efficiency in Visual Functioning: Diagnostic Assessment Procedure (DAP), American Printing House for the Blind
- Visual Efficiency Scale, American Printing House for the Blind
- Project IVEY: Increasing Visual Efficiency Observation Report, Florida Department of Education
- Functional Vision Report for Visually Handicapped Students Reading Print, American Foundation for the Blind Practice Report
- Low Vision Observation Checklist, American Printing House for the Blind
- Functional Vision: Criterion-Referenced Checklists, American Foundation for the Blind Practice Report
- Technical Assistance Paper, Functional Vision Observations, Florida Department of Education

References for further reading on this topic include:

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